

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-5. (Canceled)

6. (Currently Amended) A manufacturing method of a photo mask blank having at least a thin film for forming at least a pattern on a transparent substrate, said method comprising steps of:

setting a rotating said substrate in a horizontal position where a surface of the substrate on which said thin film is being formed and a surface of a sputtering a target are in an opposed positions with a center axis of said target deviating from a center axis of said substrate surface,

sputtering the target while rotating said substrate around its center axis so as to form said thin film disposed opposite to a position whose center axis deviates from a center axis of said substrate;
and forming said thin film.

7. (Original) The manufacturing method according to claim 6 wherein the target and the substrate are disposed so that opposite surfaces of said substrate and the target form a predetermined angle therebetween.

8. (Original) The manufacturing method according to claim 6 wherein the step of forming the film comprises a step of rotating the transparent substrate integer times between start of film formation and end of the film formation.

9. (Currently Amended) The manufacturing method according to claim [[1]] 7 wherein said thin film for forming the pattern is a phase shift film, and said photo mask blank is a phase shift mask blank.

10. (Currently Amended) The manufacturing method according to claim [[2]] 8 wherein said thin film for forming the pattern is a phase shift film, and said photo mask blank is a phase shift mask blank.

11. (Canceled)

12. (Original) The manufacturing method according to claim 6 wherein said thin film for forming the pattern is a phase shift film, and said photo mask blank is a phase shift mask blank.

13. (Currently Amended) The manufacturing method according to claim[[9]]12 wherein a dispersion of a phase angle of said phase shift film in a plane is within $\pm 2^\circ$.

14. (Original) The manufacturing method according to claim 6 wherein said thin film for forming the pattern is a light semi-transmission phase shift film, and said photo mask blank is a halftone phase shift mask blank.

15. (Original) The manufacturing method according to claim 14 wherein a dispersion of a phase angle of said light semi-transmission phase shift film in a plane is within $\pm 2^\circ$ and a dispersion

of a transmittance in the plane is within $\pm 4\%$.

16. (Original) The manufacturing method according to claim 14 wherein said light semi-transmission phase shift film is formed by sputtering the target formed of a metal and silicon in an atmosphere containing nitrogen, contains the metal, silicon and nitrogen as main constituting components, and is formed so that a content of nitrogen in said light semi-transmission phase shift film is larger than a content of silicon.

17-25. (Canceled).